

WHAT IS CLAIMED IS:

1. An area sensor comprising:
plural pixels, each having a switching element,
arranged two-dimensionally; and
plural common lines which are connected to said
switching elements corresponding to said pixels which are
arrayed in a direction, a control signal being applied to
said common line in order to drive said switching element,
wherein plural driving means for applying said control
signal are connected to said common lines.
2. An area sensor according to claim 1, wherein said
driving means is connected to both ends of said common line.
3. An area sensor according to claim 2, wherein said
control signal is applied, at the same timing, by said
driving means which is connected to both ends of said common
line.
4. An area sensor according to claim 1, wherein, in
order to allow said plural driving means to be driven at the
same time, said driving means have a start signal input
section for starting the driving of said plural driving
means.

6. An area sensor according to claim 5, wherein said pixel has a photoelectric conversion element which is connected to said thin-film transistor.

8. An area sensor comprising:
plural pixels, each having a thin-film transistor and a photoelectric conversion element, arranged two-dimensionally; and

wherein plural signal reading means are connected to said common source lines.

plural pixels, each having a thin-film transistor and a

photoelectric conversion element, arranged two-dimensionally;

plural common gate lines which are connected to the gate electrodes of said thin-film transistors which are arrayed in one direction; and

plural common lines which are connected to the source or drain electrodes of said thin-film transistors which are arrayed in another direction,

wherein plural signal reading means are connected to said common lines, and plural gate driving means are connected to said common gate lines.

10. An area sensor according to claim 9, wherein said signal reading means is connected to both ends of said common line.

11. An area sensor according to claim 9, wherein said gate driving means is connected to both ends of said common gate line.

12. An area sensor according to claim 9, wherein signal reading is performed, at the same timing, by said signal reading means which is connected to both ends of said common line.

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13. An area sensor according to claim 12, wherein said control signal is applied, at the same timing, by said gate driving means which is connected to both ends of said common gate line.

14. An area sensor according to claim 9, wherein said signal reading means is connected to both ends of said common line, and said gate driving means is connected to both ends of said common gate line.

15. An area sensor according to claim 14, wherein signal reading is performed, at the same timing, by said signal reading means which is connected to both ends of said common line.

16. An area sensor according to claim 14, wherein said control signal is applied, at the same timing, by said gate driving means which is connected to both ends of said common gate line.

17. An area sensor according to claim 14, wherein signal reading is performed, at the same timing, by said signal reading means which is connected to both ends of said common line, and said control signal is applied, at the same timing, by said gate driving means which is connected to

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both ends of said common gate line.

18. An area sensor according to claim 9, wherein said thin-film transistor comprises amorphous silicon.

19. An area sensor according to claim 9, wherein said photoelectric conversion element comprises a material selected from the group consisting of amorphous selenium, lead(II) iodide (PbI_2), and gallium arsenide.

20. An area sensor according to claim 9, wherein a wavelength conversion member is disposed in said photoelectric conversion element.

21. An area sensor according to claim 9, wherein said gate driving means or said signal reading means is anisotropically connected to the common gate line or the common source line.

22. A method of driving an area sensor having plural pixels, each having a switching element, arranged two-dimensionally, and having a pixel sequence in which the switching elements are connected to a common line, said method comprising the steps of:

applying a control signal for driving said switching

driving the switching elements which are connected to said common line in accordance with the control signal applied to said common line.

24. A method of driving an area sensor according to claim 22, wherein said control signal which is applied to said common line is applied from portions near the ends of said common line.

an area sensor having plural pixels arranged therein two-dimensionally, each pixel having a thin-film transistor and a photoelectric conversion element, having plural common gate lines which are connected to the gate electrodes of said thin-film transistors arrayed in one direction and plural common lines which are connected to the source or drain electrodes of said thin-film transistors arrayed in another direction, having plural signal reading means connected to said common lines, having plural gate driving

means connected to said common lines, and having a wavelength conversion member in the photoelectric conversion element;

an electromagnetic-wave generation source;

image processing means for processing an image signal from the area sensor; and

display means for displaying an image on which image processing is performed.

26. An image input apparatus according to claim 25, wherein a grid is provided between said area sensor and said electromagnetic-wave generation source.

27. An area sensor according to one of claims 1 to 26, wherein said signal reading means comprises an amplifier IC having an amplifier provided individually for each data line, and an analog multiplexer; and an A/D converter.

28. An area sensor according to one of claims 1 to 26, wherein said signal reading means comprises an amplifier IC having an amplifier provided individually for each data line, and an analog multiplexer; an A/D converter; and a digital multiplexer.

29. An area sensor according to one of claims 27 and

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28, wherein said signal reading means comprises a plurality of said amplifier ICs, and the output of each amplifier IC can be selected and controlled in accordance with a select signal.

30. An area sensor according to one of claims 27 to 29, wherein in said signal reading means, said amplifier IC has at least two analog outputs of the even-number group and the odd-number group.

31. An area sensor according to claim 30, wherein said signal reading means has A/D converters corresponding to the respective analog outputs of the even-number group and the odd-number group of said amplifier IC.

32. An area sensor according to claim 31, wherein in said signal reading means, the outputs of the A/D converters corresponding to said even-number group and said odd-number group are connected to the digital multiplexer.

33. An area sensor according to claim 30, wherein a second analog multiplexer for inputting and switching the analog outputs of said even-number group and said odd-number group is provided, and the output of the second analog multiplexer is connected to the A/D converter.

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34. An area sensor according to one of claims 32 and 33, wherein the output signals of said digital multiplexer or the second analog multiplexer is controlled in such a manner as to be positionally continuous.

35. An area sensor according to claim 9, wherein the resistivity of a material for the common gate line is $10 \mu\Omega \cdot \text{cm}$ or more.

36. An area sensor according to claim 9, wherein the material for the common gate line is one of chromium, titanium, molybdenum, and a molybdenum-tantalum alloy.

37. An area sensor according to claim 9, wherein there is the following relationship between the time constant τ_1 which is determined by a product of the capacitance and the on-resistance of the photoelectric conversion element and the time constant τ_2 which is determined by a product of the gate-line resistance and the gate-line parasitic capacitance:

$$\tau_1 \geq \tau_2$$